

ABSTRACT

A fluid dispensing apparatus has a reservoir, a conduit connected to an outlet of the reservoir and a valve assembly connected to the conduit. The valve assembly includes a valve body, a valve element (such as a valve stem), and an actuator. The valve body has an inlet and an outlet, and a fluid flow path extending from the inlet to the outlet through the body. The valve element has a first portion fixedly retained relative to the body, and a second movably retained portion. The actuator is coupled to the movable second portion for transmitting an applied force to the valve element to cause the second portion of the valve element to move relative to the valve body to selectively block and unblock the fluid flow path. In certain embodiments, the valve body and valve element are each made as one piece structures.